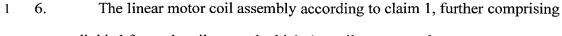
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What is claimed is:

- 1 1. A linear motor coil assembly for developing linear motion, comprising:
- a plurality of coils arranged in a line in a direction of movement, each coil
- 3 having an associated coil shaft, said coil shafts being perpendicular to the direction
- 4 of motion; and
- a flat cooling tube, said cooling tube having a cross section elongated in a
- 6 direction parallel to the coil shafts and folds into which said coils are adapted to
- 7 engage, said cooling tube meandering inside the plurality of coils.
- 1 2. The linear motor coil assembly according to claim 1, wherein the flat
- 2 cooling tube has a plurality of clearance holes for passing coolant, said clearance
- 3 holes being formed in a direction parallel to the coil shafts.
- The linear motor coil assembly according to claim 1, wherein the flat
- 2 cooling tube comprises a plurality of round pipes for passing coolant, said pipes
- 3 being aligned and attached in a direction parallel to the coil shafts.
- 1 4. The linear motor coil assembly according to claim 1, wherein the flat
- 2 cooling tube has interleaved folds at least equal in number to the number of coils.
- 1 5. The linear motor coil assembly according to claim 1, wherein the
- 2 elongated cross section of the flat cooling tube is the same as, or slightly larger than,
- 3 the length of the coils in an axial direction.



- 2 cores, divided for each coil, around which the coils are wound.
- 7. The linear motor coil assembly according to claim 6, further comprising a
- 2 base plate, the cores being fixed to the base plate in a line generally parallel to the
- 3 direction of motion.
- 1 8. A method of manufacturing a linear motor assembly for developing linear
- 2 motion, comprising the steps of:
- providing a plurality of cores divided for each magnetic pole;
- 4 winding coils around the respective cores;
- 5 providing a flat cooling tube having interleaved folds, the number of folds
- 6 being at least equal to the number of coils, said folds being changeable by the coils;
- 7 fitting the core into the folds; and
- 8 arranging the cores in a line.